

alive, turns light pink in alcohol. There are three kinds of spicules:—(1) *Megascleres*, usually strongyloxeas, but with the oxcate ends often rounded. (2) *Spherasters*, 40 to 46 μ in diameter, with a large centrum and thick, unbranched, abruptly pointed actines, of which 6 to 8 are visible in one plane; they are numerous in the cortex and the outer choanosome, but rare elsewhere. (3) *Chiasters*—usually strongylote but sometimes faintly tylote, and with more than 6 rays—are very numerous throughout the entire sponge and densely packed in the outer half of the choanosome. They range in diameter from 10 to 16 μ , and are distinctly larger in the inner half of the choanosome than elsewhere.

Pembroke, Bermuda,
May 25, 1917.

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III.—*New Lepidoptera in the Joicey Collection.*

By L. B. PROUT, F.E.S.

Family Lemoniidæ.

1. *Sabalia barnsi*, sp. n.

♂.—74 mm.

Similar to *jacksoni*, E. M. Sharpe (Ann. & Mag. Nat. Hist. (6) v. p. 443, 1890), British East Africa, of which it may possibly be a subspecies. Abdomen beneath with the proximal segments more heavily blackened.

Fore wing slightly narrower; antemedian line (bar) thicker; no appreciable black dusting in the interspaces between R^3 and M^1 ; premarginal black band broader; proximal half of abdominal margin not blackened.

Hind wing with premarginal black band broadened distally so as to reduce the spots of the ground-colour by half or more as compared with *jacksoni*.

Chambezi Valley, Karunga River, 4500 feet, Jan. 1917 (*S. A. Barns*), type in coll. Joicey. Also a short series from 150–200 miles W. of Kambove, 3500–4500 feet, 9th–11th Oct. 1907 (*S. A. Neave*), in coll. Brit. Mus.

Neither of the descriptions of Karsch's species (*tippelskirchi*, Karsch, Ent. Nachr. xxiv. p. 293; *fülleborni*, id. ibid. xxvi. p. 354) can refer to this species; in the latter the fore wing is wholly black in the cell, etc.; the former may probably be nearer, but—apart from its considerably larger size—lacks the pale patagia. The structure of the fore legs will need closer attention than I have been able to give; in the type-specimen of *barnsi* they are lost.

Family Geometridæ.

Subfamily HEMITHEINÆ.

2. *Comibæna hypolampes*, sp. n.

♂.—30 mm.

Head white, the crown somewhat mixed with green, the palpus on the sides with brownish. Antennal pectinations not quite so long as in *chalybeata*, Moore. (Body discoloured in relaxing.)

Fore wing with SC¹ free, SC² arising considerably before SC⁵; bright green, finely strigulated and irrorated with white; costal edge narrowly white; two broad white transverse lines, the first straight, at about 5 mm. from base; the second slightly curved near costa (3 mm. from apex), then nearly straight to hind margin near tornus; some slight white clouding in distal area; no terminal line; fringe white.

Hind wing with frenulum slender; termen nearly rounded, a little straighter between the radials; SC² very shortly stalked, M¹ nearly connate; costal area white, the rest concolorous with fore wing; otherwise unmarked except by a very fine white line close to termen as in *Euchloris smaragdaria* or *chlorophyllaria*.

Fore wing beneath bright green, posteriorly nearly white, and with some white admixture in distal area; first line slight, second strongly developed; hind wing beneath green, with white irroration and strigulation, postmedian line of fore wing continued, bluntly bent at R³.

Vrianatong, Tibet.

Perhaps nearest *latilinea*, Prout, but quite different in the

absence of red terminal line, the presence of white subterminal on hind wing, etc.

Subfamily *STERRHINÆ*.

3. *Semæopus ciliata*, sp. n.

♂.—35 mm.

Head light reddish brown, the face becoming pale buff below. Palpus pale buff, marked with dark reddish brown on outer side. Antenna dentate, with rather long fascicles of cilia. Hind tibia and tarsus distorted, with masses of buff and pink hair and a single spur, much as in *indignaria*, Guen.

Fore wing with SC² from cell, R² from very slightly before middle of DC; pinkish buff, very finely dusted with grey; lines grey or brown-grey, very fine; antemedian straight and rather oblique from one-third hind margin, obsolete in front of SC; median straight, parallel with termen at 5 mm. therefrom; postmedian strongly sinuous; cell-spot small, black, white-pupilled; terminal line not interrupted; fringe concolorous, usually with very feeble and minute dark dots at base opposite the veins.

Hind wing with termen almost smooth; antemedian line wanting; median slightly or very slightly bent in middle; postmedian less deeply sinuate than on fore wing.

Underside with similar markings, the antemedian line always wanting; the median on the hind wing weak or wanting; postmedian forming slight teeth on the veins; terminal line slightly thickened or even forming distinct dots between the veins; cell-dots small, not white-pupilled.

Chiriqui, Panama (*Arcé*), type in coll. Joicey. Sapucay, Paraguay (*W. Foster*), in coll. Brit. Mus. and Tring Mus. Tijuea, Brazil, in coll. Tring Mus.

Marvellously like the species which passes as *indignaria*, Guen. (though not agreeing very well with his description), which, however, has the antenna pectinate. Otherwise I can see no essential difference, though the cell-spots are in general minute. It should be added that if Guené was in error regarding his locality (which he gives as "Brazil?"), his description would lead one to identify his *indignaria* with *absconditaria*, Walk., List Lep. Ins. xxvi. p. 1488, from Haiti and Cuba.

4. *Semæopus smithi*, sp. n.

♂.—34 mm.

Head and body mostly concolorous with wings, the face

and collar somewhat paler; palpus mostly dark red on outer side, whitish beneath, terminal joint very short. Antenna with moderate fascicles of cilia. Hind tibia and tarsus with strong tufts, mostly light-coloured; abdomen with lateral tuft somewhat developed.

Fore wing with termen smooth; SC^2 about connate with SC^{3-5} ; rather glossy buff-pink, with extremely fine grey (in some lights slightly olive-tinged) irroration; costal margin more slightly irrorated; lines formed by condensation of the irroration, moderately well developed; antemedian rather weak at costal extremity, oblique outward, weakly bent in middle of cell, then very slightly sinuous to hind margin at three-sevenths, cell-spot annular, grey with a few whitish scales, its circumscription blackish; median line in the anterior half parallel with postmedian, midway between this and cell-spot, strongly oblique inwards from M^1 to behind M^2 , reaching hind margin at about three-fifths; postmedian sinuous, on the veins dentate outward; nearest the termen at SC^5-R^1 and R^2-M^1 , strongly inbent behind M^2 ; terminal line extremely fine and weak (almost obsolete).

Hind wing with termen smooth, SC^2 separate; antemedian line wanting, median rather weaker than on fore wing.

Underside much paler and rather more ochreous, the posterior part of fore wing and much of hind wing (except costal and distal regions) whitish with some iridescence; fore wing with costal margin red from near base to well beyond middle and with traces of postmedian line on anterior part, otherwise almost without markings.

Colombia (*H. H. Smith*), without more exact locality, taken in June.

5. *Semæopus preptocycla*, sp. n.

♂.—26 mm.

Head and body concolorous with wings.

Fore wing chocolate-brown, with fine, sparse, and quite inconspicuous black irroration; lines light brownish; antemedian fine and oblique outwards from two-sevenths costa, rather acutely angulated at SC , then almost straight to about two-fifths hind margin, very finely and slightly dark-edged distally; postmedian slightly less oblique than termen, not quite 3 mm. distant therefrom, forming a very gentle curve anteriorly, very finely and slightly dark-edged proximally; a large round black cell-spot (fully 1 mm. in diameter) with minute pale grey pupil; termen with triangular dots between the veins.

Hind wing the same, without antemedian line.

Underside paler; cell-spots smaller, less deep black; postmedian line present, but very weak.

Peruvian Amazons: Rio Ampiyacu, Putumayo, type in coll. Joicey; Rio Pacaya, July 1912, in coll. Brit. Mus., presented by J. J. Joicey. Also in coll. Tring Mus. from Palma Sola, Venezuela; Fonte Boa, Upper Amazons; Palcazu, E. Peru; and Yahuar Mayo, S. Peru.

6. *Ptochophyle ozophanes*, sp. n.

♂.—20 mm.

Face and palpus whitish, mixed with yellow and vinaceous. Vertex yellow. Antenna whitish, strongly mixed with vinaceous. Occiput vinaceous. Thorax and abdomen concolorous with wings.

Fore wing with areole small, all the subcostals rather long-stalked, SC¹ arising first; pale lemon-yellow, so strongly irrorated with vinaceous or reddish as to make the colour appear dull orange, leaving somewhat less heavily irrorated areas here and there; distal area slightly tinged with dull purplish; cell-spot grey, large but not strong; a slightly interrupted and irregular yellow line 2.5 mm. from and parallel with termen, thickened considerably between the radials and throwing out a tapering projection distally between R² and R³; fringe chequered.

Hind wing with termen subrenulate, slightly toothed at R³; SC² and M¹ very shortly stalked; slightly darker in distal part than in proximal; a thick yellow line from abdominal margin just beyond middle, running in direction of apex, but terminating about R¹, throwing out a small distal branch just in front of R³, a very slender proximal branch at its anterior end, and a thick bifurcating proximal branch about R³ and forwards; a yellow subterminal spot or dash about R²; fringe chequered.

Underside glossy whitish yellow; fore wing with vague vinaceous suffusions, leaving free most of the hind-marginal area and a broad but ill-defined postmedian band; hind wing with still slighter suffusions, chiefly in distal half.

Perak, 2000–3000 feet (*W. Doherty*).

7. *Ptochophyle dipyrāmida*, sp. n.

♀.—27 mm.

Face whitish yellow. Vertex vinaceous. Occiput mixed yellow and vinaceous. Antenna whitish yellow, strongly shaded above with vinaceous; inner side with mere teeth, outer with very short stout pectinations. Thorax and abdomen above vinaceous, beneath cream-buff.

Fore wing with areole small, SC^1 arising before SC^5 , M^1 separate; vinaceous cinnamon to vinaceous; in costal region vaguely mottled with yellowish, in proximal part of cell and near base posteriorly with some bright yellow mottling; an irregularly pyramidal patch beyond cell and another from tornus, their apices closely approximated at M^1 , the base of the former on SC^5 ; a small yellow mark at termen in front of R^1 , a second in front of M^2 (adjoining the tornal pyramid); minute red terminal dots on the yellow parts; fringe yellow, with a slight vinaceous mark between R^3 and M^1 .

Hind wing with termen slightly bent at SC^2 , almost right-angled at R^3 , subcrenulate posteriorly; SC^2 and R^1 very shortly stalked, M^1 barely stalked; unicolorous, with two dark vaguely connected dots on the discocellulars; fringe yellow, opposite R^3 vinaceous.

Underside paler, with the pyramids, terminal spots, and fringes whitish; costal margin of both wings pale, at least proximally; bases mixed with very pale yellow.

Tenasserim Valley, E. of Tavoy, Burma (*Doherty*).

Belongs to the *Heteroctenis* section (Meyr., Tr. Ent. Soc. Lond. 1897, p. 72).

8. *Ptochophyle anisocosma*, sp. n.

♀.—20 mm.

Head and thorax deep red, mixed with blackish; abdomen dorsally brighter lake-red, laterally yellowish, dorsally pale.

Fore wing with SC^1 arising before SC^6 , lake-red mostly irrorated with blackish fuscous, the irroration strong proximally (especially anteriorly), becoming slight distally; an elongate yellow spot between the radials, well beyond the cell; a yellow dot at R^2 between this and termen; slight yellow costal irroration near apex; a narrow yellow distal border, interrupted by the ground-colour between R^3 and M^1 and more slightly at apex, tornus, and M^2 ; a few minute red terminal dots anteriorly; fringe yellow, mixed with lake-red between R^3 and M^1 .

Hind wing with termen only feebly bent at R^3 ; DC slender, oblique, SC^2 barely stalked, M^1 about connate; without the dark irroration; a small yellow spot in end of cell; two interrupted bands of larger irregular postmedian spots, the proximal consisting of one between SC^2 and R^2 (connected posteriorly with the distal by a thin oblique mark) and one between M^1 and tornus, the distal continuous from C to M^2 , mostly narrow anteriorly, broad behind R^2 ; yellow border still narrower than on fore wing.

Underside paler, similarly marked, costal region of hind wing pale yellowish except towards apex.

Sungei Ujong, Malay Peninsula (*Durnford*).

9. *Ptochophyle vinosa*, sp. n.

♀.—22 mm.

Head and body above concolorous with wings; face whitish, vinaceous below; vertex whitish, yellow between the antennæ; beneath, with the legs, predominantly whitish.

Fore wing with termen scarcely oblique in anterior half, curving so as to become very strongly so posteriorly; areole small, SC^1 arising before SC^5 ; vinaceous, very densely irrorated with bluish, giving it a lilacine tone; markings pale yellow; a subtriangular costal spot at one-fifth; an exceedingly slender streak along costa before middle; a much broader one beyond middle, from the anterior end of which a narrow irregular band runs across the wing to tornus, strongly constricted at M^2 , then widened into a tornal patch; some interneural subterminal dots, that between SC^5 and R^1 farthest from termen; some irregular, partly elongate or confluent, terminal spots; fringe yellow, marked with lilacine opposite R^3 .

Hind wing rather elongate, with termen curved, strongly bent at R^3 ; DC oblique, SC^2 short-stalked, M^1 about connate; lilacine with terminal spots and fringe (except opposite R^3) yellow.

Underside paler; fore wing at base and along most of hind margin whitish; costal margin mixed with yellowish; otherwise as above.

N. Borneo (*Pryer*), type ♀, Elopura, off N. Borneo (*Breyer*), both in coll. Joicey.

Specimens which are probably the ♂ to this ("Borneo" and Sandakan) stand in coll. Brit. Mus. under the MS. name of *vinosa*, Warr.; they are strongly mottled with yellow in the central area of the fore wing and throughout the hind wing, and have a more or less complete, though narrower, antemedian band, arising in the cell, but slenderly connected with the posterior extremity of the first costal spot. The sexual difference would be somewhat analogous, though not strictly parallel, to that obtaining in *permutans*, Hamps. (Ill. Het. viii. p. 123), and in *togata*, F. (Supp. Ent. p. 454) = *amanaria*, Snell. (Tijd. Ent. xxxiii. p. 222) = *auricincta*, Hamps. (Ill. Het. ix. p. 149), of which latter *deviaria*, Walk. (List Lep. Ins. xxii. p. 664), must surely, by analogy with *permutans*, be the ♂.

10. *Cosymbia dyschroa*, sp. n.

♀.—24 mm.

Face pale olive. Palpus nearly twice as long as diameter of eye, third joint slender, about half as long as diameter of eye; pale olive above (third joint narrowly darkened), rather paler beneath; crown, thorax, and abdomen concolorous, the vertex very narrowly white in front.

Fore wing rather broad, apex acute, minutely produced, termen nearly straight, tornus pronounced; glossy smoke-grey with a slight olive tinge, somewhat sprinkled with bluish-silvery scales; costal region with some purplish dots, mostly very minute, a few on the margin itself (especially near apex) less so; lines indicated by dark vein-dots; ante-median outbent in middle, only the dots on M and SM well developed; postmedian from beyond two-thirds costa, very gently excurved in anterior half and incurved in posterior; cell-spot elongate but small, white, very slightly dark-edged; traces of a very faint greyish median shade beyond it, curved parallel with postmedian; terminal line dull purple, very slightly lunulate, appearing more so on account of the slight interruption at vein-ends and confluence with small concolorous dots at base of fringe opposite the veins; fringe otherwise cream-buff.

Hind wing with apex rectangular, termen bent at R^3 ; nearly as fore wing; circumscription of cell-spot stronger, median shade straighter, touching the cell-spot.

Both wings beneath paler, inclining to bluish white; fore wing except posteriorly, hind wing at apex only, flushed with pink; a white cell-dot indicated on both wings, a row of small weak postmedian dots on fore wing only.

Caparo, W. Trinidad (*F. Birch*).

The coloration recalls *Zalissolepis violacearia*, Guen. (Spec. Gén. Léop. ix. p. 386), more than any other known *Cosymbia*.

11. *Pisoraea diplosticta*, sp. n.

♂.—32 mm.

Face dull reddish. Palpus fully twice as long as diameter of eye, with third joint long; red above, whitish ochreous beneath. Vertex and antennal shaft whitish ochreous, somewhat spotted with reddish. Thorax and abdomen nearly concolorous with wings, the abdomen somewhat redder above. Hind femur fringed with fine whitish hair beneath; hind tibia with the proximal spur short.

Fore wing with arcole rather small; pinkish buff with a

very slight (at costal margin rather thicker and greyer) darker irroration; lines weak, vaguely greyish; antemedian at little beyond one-fourth, somewhat excurved and sinuous, chiefly indicated by dark dots on the veins, median shade broader, lunulate-dentate, arising at about three-fifths costa, incurved between M^1 and SM^2 ; postmedian fine, shallowly lunulate, but scarcely traceable except on the veins, where it is marked by strong black dots (very slightly elongate) at about 2.5 mm. from termen, slightly incurved at costa; cell-mark slightly raised, very feeble, elongate, very slightly and incompletely dark-edged; both the series of terminal dots sharply expressed, those on the veins smaller than those between; fringe slightly more ochreous proximally.

Hind wing with termen slightly waved; SC^2 just stalked (type) to just separate; similar to fore wing, the cell-dot whiter, less elongate, more strongly dark-edged.

Underside of fore wing more flesh-coloured, at hind margin whitish, of hind wing whitish, mixed with flesh-colour distally; fore wing with median shade faintly traceable in flesh-colour; both wings with flesh-coloured postmedian line, marked with brown dots on the veins; terminal dots developed, the interneural rather less black and more diffuse than above.

Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates*), type in coll. Joicey. A ♂ from the same locality and two from Lake Azingo, Gaboon, in coll. Tring Mus.

I do not think this can be a local race of *caccaria*, Guen. = *deremptaria*, Walk., from South Africa, which has the cell-mark of fore wing smaller and rounder, but of which no good specimens are accessible to me. If, as I suspect, *lyciscaria*, Guen. = *bitactata*, Walk., is an aberration of the latter, it appears to have the hind femur glabrous or nearly so.

12. *Hamalia apiozona*, sp. n.

♀.—22 mm.

Head and body cream-buff; palpus darkened on outer side; thorax and abdomen dorsally with some darker admixture, a brown belt at base of abdomen.

Fore wing rather narrow, termen oblique, smooth, nearly straight; SC^2 arising well before end of cell; white, mostly covered with light pinkish-buff markings; a very strongly outbent white line at one-fourth (accompanied by some whitish shading proximally), bounding the median area proximally; median area forming a very broad band, of which the distal edge is very acutely angulated outwards on

R¹, here (and nearly to R³) confluent with the proximal shading of subterminal line, posteriorly more oblique than termen, reaching hind margin at middle; a minute dark cell-dot at base of R²; subterminal line white, with irregular brown shadings on both sides, slightly oblique inwards at costa, then forming a deep outward curve (with its extremity on R¹), slightly inbent before R³, sinuate inwards between M² and SM²; a rather conspicuous subtriangular white spot close to apex; dark dots at termen before and behind R¹, accompanied proximally by small white wedges; the posterior part of terminal area irregularly mixed with light violet-grey and (towards tornus) blackish; fringe pale brownish, unmarked.

Hind wing rather narrow, termen rounded anteriorly, then almost straight; a rather strong subbasal brown band; median band very feeble and ill-defined, separated from a better expressed brown submarginal band by a white shade; a very narrow white distal border, marked at apex with a brown dash and between some of the veins with brown dots; fringe unmarked.

Underside whitish, the hind wing almost unmarked, the fore wing becoming browner anteriorly, and with a dark brown terminal border from tornus to R¹, becoming lighter brown and subterminal anteriorly.

Rio Derg, Brazil, type in coll. Joicey. Rio Janeiro, paratype in coll. Brit. Mus.

13. *Pigia flexistrigata extensa*, subsp. n.

♂.—25–27 mm.

Much larger than *flexistrigata flexistrigata*, relatively longer-winged (termen of fore wing more oblique), underside less sharply marked, with median line of hind wing obsolete.

Carabaya, S.E. Peru: Oconeque, 7000 feet, Feb. 1905 (*G. Ockenden*), type in coll. Joicey; July 1904 (dry season), 1 ♂ in coll. Tring Mus.; Santo Domingo, Nov. 1902 (wet), 1 ♂ in coll. Tring Mus.

Possibly a separate species.

Except in the angulated hind wing this species (described by Warren, Nov. Zool. vii. p. 150, as a *Craspedia*) does not differ in material characters from *Pigia* (type *tergeminaria*, H.-Sch. = *miconiata*, Walk.).

14. *Antitrygodes callibotrys*, sp. n.

♂.—36 mm.

Face and outer side of palpus light reddish brown. Head,

thorax, and abdomen concolorous with wings, the upperside of thorax with the black speckling rather copious, of abdomen with a few small brown spots. Antenna with short pectinations, at least as long as diameter of shaft, surmounted by strong fascicles of cilia. Hind tibia thick, with dark hair-pencil; tarsus scarcely one-half as long, tapering. Abdomen with lateral tufts not strong.

Fore wing with SC^1 well free, not even bending towards SC^{2-5} , R^2 from before middle of DC; flesh-colour with a vinaceous tinge; proximal part with black speckling, distal with exceedingly fine, scarcely noticeable, olive-green irroration; first line light brown, speckled with black, sinuous, posteriorly oblique outwards; median area with the cluster of olive-green spots large, partly black-edged, distally again very finely whitish-margined; an elongate black cell-mark amongst them, attenuated in its middle, followed by a black dot at bifurcation of R^3 and M^1 ; postmedian line light brown, oblique outwards from three-fifths costa, strongly bent at R^1 , then approximately parallel with termen; submarginal line rather darker, slenderer, sinuous, followed distally by bipartite olive-green spots between the radials and between M^2 and SM^2 ; terminal line scarcely interrupted, slightly thickened between the veins; fringe tipped with brown, a fine whitish line at base.

Hind wing with termen very feebly crenulate, with a just appreciable angle at R^1 ; first line wanting; green central spots corresponding to those of fore wing, the posterior ones (between M^1 and SM^2) smaller, not reaching beyond fold; postmedian line not bent at R^3 ; subterminal nearly as on fore wing; submarginal spot between radials reduced to a small triangular or V-shaped mark on R^2 , subterminal nearly obsolete.

Both wings beneath with postmedian, subterminal, and terminal lines well developed.

Upper Kasai district, Congo Free State (*F. Landbeck*), type in coll. Joicey. Entebbe, Uganda (*E. A. Minchin*), paratype (σ) in coll. Brit. Mus.

Apart from the difference in markings, this is distinguished at once from *dentilinea*, Warr., by the venation and the pectinate σ antenna. I have elsewhere (Mitt. Deutsch. Ent. Mus. iii. p. 241) noticed the frequent loss of the areole in *A. divisaria divisaria*, Walk., and may add that I have found the same phenomenon in *A. agrata*, Feld., and *A. parvimaacula*, Warr.; but in these cases SC^1 still approaches SC^2 at the point where the distal wall of the areole is normally formed, whereas in *callibotrys*—and often in *vicina*, Th.-Mieg, from the Khasis, possibly a race of *agrata*—it runs parallel.

15. *Metasiopsis trichroa*, sp. n.

♀.—20 mm.

Face blackish; palpus pale beneath. Vertex narrowly yellowish; occiput mixed with blackish; collar rosy. Thorax and abdomen yellow, much mixed with rosy above.

Fore wing with SC^2 arising from cell; glossy yellow; proximal area, as far as the oblique, somewhat sinuous antemedian line (or band), predominantly peach-blossom pink, costal margin broadly but not very definitely suffused with pink, in proximal part also slightly with dark purple-grey; median pink line thickest anteriorly, slightly sinuous; postmedian irregular, bent outwards to M^1 , interrupted between the medians, thick behind M^2 , partly confluent with a pink tornal spot; some slight pink apical suffusions; just proximal to the antemedian line in the cell is placed a small blackish-slate spot, on the anterior half of the postmedian band a similarly coloured line; fringe pale yellow.

Hind wing with termen shallowly sinuate between the radials, slightly toothed at ends of veins; SC^2-R^1 moderately stalked; proximal half yellow with ill-defined sinuous antemedian and median lines, distal half predominantly pink, but with irregular spots of the ground-colour, suggesting a sinuous or dentate transverse band; fringe pale yellow.

Underside somewhat paler yellow with similar but weaker markings, the antemedian and median lines of hind wing obsolete behind cell, the distal pink shading of hind wing much feebler, suggesting two thick sinuous lines.

Bonda, Colombia, 150 feet (*H. H. Smith*), type and another in coll. Joicey.

Suggestive of *radaria*, Schs., and other pink-and-yellow species, but with the superimposed purple-grey markings characteristic.

16. *Ptychopoda complexaria amazonensis*, subsp. n.

Somatina eburneata? (part.), Butl., Tr. Ent. Soc. Lond. 1881, p. 340 (indescr.), nec Guen.

Differs from *complexaria complexaria*, Schs. (Tr. Amer. Ent. Soc. xxvii. p. 257), S.E. Peru, in lacking the black spots on abdomen, in having the spots of the proximal half of fore wing reduced in size, those at the end of the cell united into a ring, the subterminal spots well defined between the radials, and generally between R^3 and M^2 , as well as at hind margin. Abdomen more or less strongly belted with ochreous brown.

Contamama, Rio Ucayali, Peruvian Amazons, Oct.-Dec.,

type in coll. Joicey. Rio Pacaya, Peru, July 1913, 1 ♂ in coll. Brit. Mus. (presented by J. J. Joicey). Uruçaca, Rio Juruá, Amazons, November 9th, 1874, 1 ♂ in coll. Brit. Mus. (*Bull. l. c.*). Fonte Boa, Upper Amazon, July 1906 and July 1907 (*Klages*), in coll. Tring Mus.

17. *Ptychopoda deliloides*, sp. n.

♂.—18 mm.

Face and upperside of palpus black. Vertex and base of antenna white; ciliation rather short. Occiput walnut-brown. Thorax above reddish, anteriorly mixed with black, posteriorly with white; abdomen above reddish, somewhat mixed with white, especially towards anal end. Hind tibia rather large, thick and tufted, tarsus strongly abbreviated.

Fore wing with areole moderate or rather long, rather narrow, all the subcostals stalked from its apex; mostly walnut-brown, with fine white irroration; base of costa blackish, the white scaling strong in the rest of the proximal area, developing into an ill-defined white line at the edge of the median area, which runs very obliquely outwards from costa, is acutely angulated subcostally, and then very oblique inwards to hind margin; median area very broad, costally mixed with white, its edges slightly darkened; an indistinct dark cell-mark and traces of a dark median line near to and parallel with the antemedian, but not angulated subcostally, touching the cell-mark; a very irregular white line distally to the median area, angulated at R^1 , slightly sinuate inwards between R^1 and R^3 , very near the termen between R^3 and M^2 , rather deeply sinuate inwards between M^2 and SM^2 , again angulated on SM^2 ; a white subapical and slighter central suffusion distally; a white line close to termen, slightly receding therefrom at costa; a dark terminal line; fringe whitish brown or almost white, with darker and redder spots opposite the veins.

Hind wing with SC^2 and R^1 quite shortly stalked; red nearly to base; two white distal lines corresponding to those of fore wing; terminal line and fringe as on fore wing.

Fore wing beneath almost entirely suffused with vinaceous, hind wing partly rosy but generally more mixed with white, especially posteriorly and towards distal margin, where a rosy line remains observable between the two white lines of the upperside.

Pozuzo, E. Peru (*J. Egg*). Type in coll. Joicey, others in coll. Tring Mus. Also occurs in Colombia, Ecuador, Bolivia, French Guiana, and Amazons.

Except in the less glossy wings more recalls the *adela* group of *Hamalia* (especially *delila*, Schs., Ann. & Mag. Nat. Hist. (8) ix. p. 430, as *Dithadama*) than any *Ptychopoda* with which I can compare it.

18. *Flavinia stenochora*, sp. n.

♀.—37 mm.

Head black, narrowly white round the eye. Palpus short. Body black, the abdomen with an interrupted yellow stripe on the side and white line beneath.

Fore wing with areole single, narrow, in one example almost suppressed; DC³ oblique, R² arising near (in the type even close to) R³, M¹ widely separate, black, with the proximal yellow patch narrow, not crossing M or SM²; subapical yellow patch rather broad; fringe black.

Hind wing rather elongate; yellow, with rather broad black borders, the abdominal tapering to a point proximally, the anterior crossing SC, so as to enter the cell, but distally thereto bounded by the stalk of SC² and R¹.

Underside similar, the fore wing with a yellow posterior streak in proximal part of cell.

Minas Geraes, Brazil, type in coll. Joicey, ex. coll. Gr.-Sm. 2 ♀♀ from the Milne collection, without locality, have for more than half a century stood in coll. Brit. Mus., originally mixed by Walker among his *approximans*, List Lep. Ins. ii. p. 370 (*isis*, Hb.).

Perhaps near *dubia*, Schs., distinguished by the venation, by the proximal patch of fore wing not entering the cell, the white line on venter, yellow streak on cell of fore wing beneath, etc. The exceptional position of R² of fore wing—hitherto only known, in this family, in a few *Geometrinæ* and one or two *Larentiinae*—may betoken generic divergence.

Subfamily LARENTIINÆ.

19. *Mennis ficulnea albifera*, subsp. n.

♂.—34–37 mm.

Smaller than *ficulnea ficulnea* from Ecuador, ground-colour redder, distal borders generally broadened; fore wing with a more or less extended white posterior patch, commencing at a point close to base, broadening rapidly, bounded distally by the black border; hind wing also frequently with some whitish shading between the ground-colour and the border posteriorly.

Charape, River Tabaconas, N. Peru, 4000 feet, 1912, the more exactly labelled specimens dated Sept.-Oct. (*A. & E. Pratt*).

Subfamily GEOMETRINÆ.

20. *Cleora clarivenata*, sp. n.

♂.—54 mm.

Face flat. Palpus rather short and stout, with moderately appressed scales. Tongue slight. Antennal pectinations very long, continuing to near apex. Pectus strongly hairy. (Hind legs lost.) Head and body concolorous with wings, the abdomen with ochreous anal tuft and with indications of white distal edgings to the segments above, only the first distinct.

Fore wing with fovea slight; SC^{1-2} moderately long-stalked, separating about opposite the branching of SC^5 , not connected with C or SC^3 ; Prout's brown, with some of the veins (especially M , R^1 , R^3 , M^1 , the end of SC^5 , and, more finely, M^2) yellowish white; lines yellowish white; antemedian acutely angulated inwards close to costa, then forming an outward curve or bend, from M strongly oblique inwards to hind margin near base; postmedian about 3 mm. from termen, nearly parallel therewith, very slightly approaching it at hind margin.

Hind wing with termen weakly suberemulate; similar to fore wing; SM^3 also whitened; antemedian line wanting; postmedian slightly bent at radial fold.

Underside slightly paler, without white veins; antemedian line wanting, postmedian a little less strong than above.

Upper Kasai River, Congo Free State (*F. Landbeck*).

21. *Calihistia grandis latiplaga*, subsp. n.

Yellow band of hind wing considerably widened, at abdominal margin generally measuring 11 mm., never less than 9 mm., its form in the ♂ almost quadrate, its anterior boundary in the ♀ (in front of the second subcostal vein) 7-9 mm. long.

Mysol, foothills, 100-200 feet, Oct.-Nov. 1916, wet season (*W. J. C. Frost*), type and another ♂, 6 ♀ ♀.